

In the claims:

1. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein comprising a fusion of, toward the N-terminus, at least an MHC Class II binding domain of an MHC Class II α chain and, toward the C-terminus, a dimerization domain.
2. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 1 wherein said MHC Class II binding domain comprises an extracellular domain of an MHC Class II α chain.
3. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 2 wherein said extracellular domain comprises residues 5-180 of an MHC Class II α chain.
4. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 2 wherein said extracellular domain comprises residues 5-200 of an MHC Class II α chain.
5. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 2 wherein said extracellular domain comprises residues 5-190 of an MHC Class II α chain.
6. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 1 wherein said MHC Class II α chain is selected from the group consisting of HLA-DR1, HLA-DR2, HLA-DR4, HLA-DQ1, HLA-DQ2 and HLA-DQ8 α chains.
7. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 1 wherein said MHC Class II α chain is encoded by an HLA allele selected from the group consisting of DRA*0101, DRA*0102, DQA1*0301 and DQA1*0501 alleles.
8. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein comprising a fusion of, toward the N-terminus, at least an MHC Class II binding domain of an MHC Class II β chain and, toward the C-terminus, a dimerization domain.

9. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 8 wherein said MHC Class II binding domain comprises an extracellular domain of an MHC Class II β chain.

10. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 9 wherein said extracellular domain comprises residues 5-185 of an MHC Class II β chain.

11. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 9 wherein said extracellular domain comprises residues 5-205 of an MHC Class II β chain.

12. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 9 wherein said extracellular domain comprises residues 5-195 of an MHC Class II β chain.

13. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 8 wherein said MHC Class II β chain is selected from the group consisting of HLA-DR1, HLA-DR2, HLA-DR4, HLA-DQ1, HLA-DQ2 and HLA-DQ8 β chains.

14. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 8 wherein said MHC Class II β chain is encoded by an allele selected from the group consisting of DRB1*01, DRB1*15, DRB1*16, DRB5*01, DRB1*03, and DRB1*02 alleles.

15. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in any one of claims 1-14 wherein said dimerization domain is a coiled-coil domain.

16. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 15 wherein said dimerization domain is a leucine zipper domain.

17. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 16 wherein said leucine zipper domain comprises at least four leucine heptads.

18. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 16 wherein said leucine zipper domain is selected from the group consisting of a Fos and a Jun leucine zipper domain.

19. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in any one of claims 1-14 wherein said dimerization domain is an immunoglobulin Fab constant domain.

20. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 19 wherein said immunoglobulin Fab constant domain is an immunoglobulin heavy chain C_H1 constant region.

21-102. (Cancelled)

103. (Previously presented) A Class II Major Histocompatibility Complex fusion protein comprising

a heterodimer of a first polypeptide chain and a second polypeptide chain;

wherein the first polypeptide chain comprises a fusion of, toward the N-terminus, an extracellular domain of a human MHC Class II α chain and, toward the C-terminus, a first coiled-coil dimerization domain; and

wherein the second polypeptide chain comprises a fusion of, toward the N-terminus, an extracellular domain of a human MHC Class II β chain and, toward the C-terminus, a second coiled-coil dimerization domain; and

wherein the first dimerization domain and said second dimerization domain associate in solution at physiological conditions to form a heterodimer capable of selectively binding a MHC binding peptide.

104-113. (Cancelled)

114. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the extracellular domain of the MHC Class II α chain comprises amino acid residues 5-180 of a MHC Class II α chain.

115. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the extracellular domain of the MHC Class II α chain comprises amino acid residues 5-200 of a MHC Class II α chain.

116. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II α chain is an HLA-DR2 allele.

117. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II α chain is encoded by an HLA allele selected from the group consisting of DRA*0101 and DRA*0102.

118. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II β chain extracellular domain comprises amino acid residues 5-185 of an MHC Class II β chain.

119. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II β chain extracellular domain comprises amino acid residues 5-205 of an MHC Class II β chain.

120. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II β chain is an HLA-DR2 allele.

121. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II β chain is encoded by an allele selected from the group consisting of DRB1*01, DRB1*15, DRB1*16, and DRB5*01.

122. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein at least one of the dimerization domains comprises a leucine zipper domain.

123. **(Previously presented)** The MHC Class II fusion protein of claim 122 wherein the leucine zipper domain comprises at least four leucine heptads.

124. **(Previously presented)** The MHC Class II fusion protein of claim 123 wherein the leucine zipper domain is selected from the group consisting of a Fos and a Jun leucine zipper domain.

125. **(Previously presented)** The MHC Class II fusion protein of claim 103 further comprising a first immunoglobulin Fc domain positioned at the C-terminus of at least one of the first and or second polypeptide chains.

126. **(Previously presented)** The MHC Class II fusion protein of claim 125 wherein the Fc domain is an IgG Fc domain.

127. **(Previously presented)** The MHC Class II fusion protein of claim 125 wherein the Fc domain includes the hinge region.

128. **(Previously presented)** The MHC Class II fusion protein of claim 103 further comprising a first flexible molecular linker covalently linking the MHC Class II α chain to the first dimerization domain and a second flexible molecular linker covalently linking the MHC Class II β chain to the second dimerization domain.

129. **(Previously presented)** The MHC Class II fusion protein of claim 103 further comprising an MHC binding peptide bound to the MHC Class II fusion protein.

130. **(Previously presented)** The MHC Class II fusion protein of claim 129 wherein the MHC binding peptide is covalently bound to the MHC Class II fusion protein.

131. **(Previously presented)** A MHC Class II-peptide complex comprising

at least one Class II MHC fusion protein comprising a heterodimer of a first polypeptide chain and a second polypeptide chain;

wherein the first polypeptide chain comprises a fusion of, toward the N-terminus, an extracellular domain of a human MHC Class II α chain, and toward the C-terminus, a flexible molecular linker, and a first coiled-coil dimerization domain;

wherein the second polypeptide chain comprises a fusion of, toward the N-terminus, an extracellular domain of a human MHC Class II β chain, and toward the C-terminus, a flexible molecular linker, and a second coiled-coil dimerization domain;

wherein a Fc domain is covalently attached to the C-terminus of at least one of the first or second dimerization domains;

wherein the first dimerization domain and said second dimerization domain associate in solution at physiological conditions; and

a MHC binding peptide covalently bound to the at least one MHC Class II fusion protein.

132. **(Previously presented)** The MHC Class II-peptide Complex of claim 131 wherein the MHC binding peptide is covalently attached to the N-terminus of the first polypeptide chain and the Fc domain is covalently attached to the C-terminus of the second polypeptide chain.

133. **(Previously presented)** The MHC Class II-peptide Complex of claim 131 wherein the MHC binding peptide is covalently attached to the N-terminus of the second polypeptide chain and the Fc domain is covalently attached to the C-terminus of the first polypeptide chain.

134. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein the extracellular domain of the MHC Class II α chain comprises amino acid residues 5-180 of a MHC Class II α chain.

135. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein the extracellular domain of the MHC Class II α chain comprises amino acid residues 5-200 of a MHC Class II α chain.

136. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein the MHC Class II α chain is an HLA-DR2 allele.

137. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein the MHC Class II α chain is encoded by an HLA allele selected from the group consisting of DRA*0101 and DRA*0102.

138. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein the MHC Class II β chain extracellular domain comprises amino acid residues 5-185 of a MHC Class II β chain.

139. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein the MHC Class II β chain extracellular domain comprises amino acid residues 5-205 of a MHC Class II β chain.

140. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein the MHC Class II β chain is an HLA-DR2 allele.

141. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein the MHC Class II β chain is encoded by an allele selected from the group consisting of DRB1*01, DRB1*15, DRB1*16, and DRB5*01.

142. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein at least one of the dimerization domains comprises a leucine zipper domain.

143. **(Previously presented)** The MHC Class II fusion protein of claim 142 wherein the leucine zipper domain comprises at least four leucine heptads.

144. **(Previously presented)** The MHC Class II fusion protein of claim 143 wherein the leucine zipper domain is selected from the group consisting of a Fos and a Jun leucine zipper domain.

145. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein the Fc domain is an IgG Fc domain.

146. **(Previously presented)** The MHC Class II fusion protein of claim 131 wherein the Fc domain includes the hinge region.

147. **(Previously presented)** The MHC Class II fusion protein of claim 131 further comprising a first flexible molecular linker covalently linking the MHC Class II α chain to the first dimerization domain and a second flexible molecular linker covalently linking the MHC Class II β chain to the second dimerization domain